

## **ABSTRACT OF THE INVENTION**

Determining a route between a start and to the target geometry by producing potential route segments and testing the segments to determine whether they create acute angles in the route. If a potential route segment produces an acute angle in the route, it is prevented from being included in the route. Some embodiments define at least one border region about each start or target geometry. Associated with each border region are one or more routing rules that specify valid routing configurations that do not produce acute angles in the route within the border region. To avoid acute angles in the routing pathway between the start and target geometries, some embodiments test for acute angles at connection points between route segments using pretabulated tables that define connection configurations between route segments that do not contain acute angles.